

AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. [Currently Amended] A method for providing a power monitoring service for a plurality of power consumer sites, the method comprising:

providing a respective monitoring unit at each one of a plurality of power consumer sites ~~for monitoring a respective power consumption of individual power distribution circuits of each consumer site,~~ each monitoring unit being operative to periodically sample a selected power consumption parameter of each one of a plurality of power distribution circuits of its respective consumer site;

~~providing a circuit description table including an identification of at least one electrical load on each monitored power distribution circuit;~~

at the monitoring service server;

periodically receiving respective power consumption data indicative of the power consumption monitored at each one of the plurality of consumer sites from each monitoring unit, the power consumption data comprising a block of power consumption parameter samples stored by the monitoring unit since a previous successful attempt to download power consumption data to the monitoring service server; and

analyzing the received power consumption data to compute aggregate power consumption data ~~of a predetermined set of two or more of the plurality of power consumer sites; and~~

providing an interface for enabling interested parties to access at least the aggregate power consumption information in accordance with a subscription agreement.

2. [Cancelled]

3. [Cancelled]
4. [Cancelled]
5. [Previously Amended] The method as claimed in claim 1 wherein the step of analyzing the received power consumption data further comprises using the received power consumption data to compute a respective power consumption profile of each power consumer site.
6. [Previously Amended] The method as claimed in claim 1 further comprising using the received power consumption information and the respective circuit description table associated with each power consumption site to compute an aggregate power consumption profile of at least one appliance.
7. [Currently Amended] The method as claimed in claim 6 further comprising comparing received power consumption data of a selected appliance and a power distribution circuit with the aggregate power consumption profile of that appliance ~~in order to~~ identify actual power consumption differences between the selected appliance and a mean of power consumption of similar monitored appliances.
8. [Previously Amended] The method as claimed in claim 6 further comprising using the received power consumption data of the selected appliance over an interval of time, and the aggregate power consumption profile of the appliance, to identify a fault in the appliance.
9. [Cancelled]
10. [Cancelled]
11. [Cancelled]

12. [Currently Amended] The system as claimed in claim 22 wherein ~~each of the plurality of probes measures a~~ the selected power consumption parameter comprises a current in its ~~the~~ respective power distribution circuit.
13. [Cancelled]
14. [Cancelled]
15. [Currently Amended] The system as claimed in claim 22 wherein the monitoring unit further comprises an interface for transmitting commands to a controller of at least one power consuming device, ~~the interface and controller permitting the control of the device.~~
16. [Cancelled]
17. [Previously Amended] A system as claimed in claim 22 wherein the monitoring service equipment further analyses the received power consumption data to compute a respective power consumption profile of each consumer site.
18. [Previously Amended] The system as claimed in claim 17 wherein the monitoring service equipment comprises a database for storing an aggregate power consumption profile computed using the respective power consumption profiles and circuit description tables of the set of power consumer sites.
19. [Currently Amended] The system as claimed in claim 22 wherein the ~~monitoring service equipment interface~~ further comprises a world wide web site for selectively displaying the power consumption profiles and aggregate power consumption profiles.
20. [Previously Amended] The system as claimed in claim 22 wherein the monitoring service equipment further monitors the received power consumption data to detect anomalies in the power consumption of appliances connected to the monitored power distribution circuits.

21. [Cancelled]

22. [Currently Amended] A system for monitoring power consumption at a plurality of consumer sites, comprising:

a respective monitoring unit at each one of the plurality of power consumer sites, each monitoring unit ~~being connected to a respective plurality of probes for monitoring power consumption of individual power distribution circuits of the consumer site~~ operative to periodically sample a selected power consumption parameter of each one of a plurality of power distribution circuits of its respective consumer site; and

~~a circuit description table including an identification of at least one electrical load on each monitored power distribution circuit; and~~

a monitoring service equipment monitoring service server remote from the consumer sites for periodically receiving respective power consumption data indicative of the power consumption monitored at each one of the plurality of consumer sites from each monitoring unit, the power consumption data comprising a block of power consumption parameter samples stored by the respective monitoring unit since a previous successful attempt to download power consumption data to the monitoring service server, and for analyzing the received power consumption data to compute aggregate power consumption data of a predetermined set of two or more of the plurality of power consumer sites; and

an interface for enabling interested parties to access at least the aggregate power consumption information in accordance with a subscription agreement.

23. [New] A method for providing a power monitoring service for a plurality of power consumer sites, the method comprising, at each power consumer site, steps of:

periodically sampling a selected power consumption parameter of each one of a plurality of power distribution circuits of the power consumer site, and storing a plurality of sample values of the selected power consumption parameter as power consumption data; and

periodically transmitting the power consumption data to a remote monitoring service server for processing respective power consumption data from each one of the plurality of power consumer sites.

24. [NEW] The method of claim 23, wherein the step of periodically sampling a selected power consumption parameter comprises detecting an instantaneous current in each power distribution circuit, at predetermined intervals.
25. [New] The method of claim 23, wherein the power consumption data comprises a plurality of successive sample values obtained from each power distribution circuit.
26. [New] The method of claim 23, wherein the step of periodically transmitting the power consumption data to the remote monitoring service server is performed in response to any one or more of:
- expiry of a predetermined time period since a previous successful transmission of power consumption data to the remote monitoring service server;
 - receipt of a command from the remote monitoring service server;
 - accumulation of a predetermined number of successive sample values obtained from each power distribution circuit.
27. [New] The method of claim 23, wherein the step of periodically transmitting the power consumption data to the remote monitoring service server further comprises a step of deleting the stored power consumption data following successful transmission of the power consumption data to the remote monitoring service server.